

constant frequency and amplitude and the send signal, comprising a minimum of one period, with a minimum of one receiver unit receiving the response signals reflected and/or transmitted from the medium. The transmitter and receiver units are coupled to the medium. The receiver unit is coupled to an A/D converter and a sampling device. The transmitter unit and the output of the A/D converter are coupled to a numerical processor for determination of the phase shift between the send signal and the response signal, with the output being connected to a display. A memory device may be used instead of a display.--